

CLAIMS

What is claimed is:

1. A steering column assembly (12) for an automotive vehicle (10) comprising:
a steering shaft (28) defining at least one receiving portion (38);
and
a locking pin (40) selectively insertable in said a receiving portion (38) and having a first truncated cone portion (42) narrowing from a first end (44) at a first angle (46) to a second end (48) and a second truncated cone portion (50) extending from said second end (48) and narrowing from said second end (48) at a second angle (52) to a third end (54) and said first and second angles (46, 52) being different.
2. The steering column assembly (12) of claim 1 wherein said second angle (52) is less than said first angle (46).
3. The steering column assembly (12) of claim 2 wherein said second angle (52) is one-half said first angle (46).
4. The steering column assembly (12) of claim 3 wherein said second angle (52) is four degrees.
5. The steering column assembly (12) of claim 1 wherein both said first and second truncated cone portions (42, 50) define first and second maximum diameters and each of said first and second maximum diameters are insertable in said receiving portion (38).
6. The steering column assembly (12) of claim 1 wherein both said first and second truncated cone portions (42, 50) extend concentrically with respect to one another.

7. The steering column assembly (12) of claim 1 wherein said receiving portion (38) extends in parallel relation to said steering shaft (28) and in coaxial relation to at least one of said truncated cone portions (42, 50).

8. The steering column assembly (12) of claim 1 wherein said steering shaft (28) is further defined as a steering shaft (28) mounted for rotation and a plate member (36) immovably associated with said steering shaft (28) and defining said receiving portion (38).

9. The steering column assembly (12) of claim 1 wherein said receiving portion (38) is one of an aperture and a notch.

10. The steering column assembly (12) of claim 1 wherein at least one of said truncated cone portions (42, 50) defines a cam follower surface.

11. A steering column assembly (12) for an automotive vehicle (10) comprising:

- a steering shaft (28);
- a plate member (36) immovably associated with said steering shaft (28) and defining a receiving portion (38); and
- a locking pin (40) selectively insertable in said receiving portion (38), said locking pin (40) having a first truncated cone portion (42) narrowing from a first end (44) at a first angle (46) to a second end (48) and a second truncated cone portion (50) extending from said second end (48) and narrowing from said second end (48) at a second angle (52) to a third end (54) and said first and second angles (46, 52) being different and wherein said second angle (52) is less than said first angle (46).

12. The steering column assembly (12) of claim 11 wherein both said first and second truncated cone portions (42, 50) are intermittently

insertable in said receiving portion (38) during rotation of said plate member (36).

13. The steering column assembly (12) of claim 11 wherein said receiving portion (38) extends in parallel relation to said steering shaft (28) and in coaxial relation to both of said truncated cone portions (42, 50).

14. The steering column assembly (12) of claim 11 wherein only one of said truncated cone portions (42, 50) defines a cam follower surface.

15. The steering column assembly (12) of claim 11 wherein said receiving portion (38) is one of an aperture and a notch.

16. A steering column assembly (12) for an automotive vehicle (10) comprising:

a steering column housing (22) defining a first longitudinal recess (32) and a second recess (34) extending parallel and offset with respect to said first recess (32);

a steering shaft (28) mounted for rotation within said first recess (32) of said steering column housing (22);

a plate member (36) immovably associated with said steering shaft (28) and defining a receiving portion (38) intermittently communicating with said second recess (34) during rotation of said steering shaft (28); and

a locking pin (40) slidably mounted within said second recess (34) of said steering column housing (22) and selectively insertable in said receiving portion (38) when said receiving portion (38) is in communication with said second recess (34), said locking pin (40) having a first truncated cone portion (42) narrowing from a first end (44) at a first angle (46) to a second end (48) and a second truncated cone portion (50) extending from said second end (48) and narrowing from said second end (48) at a second angle (52) to a third end (54) and said first and second angles (46, 52) being different.